IN THE CLAIMS

Please amend claims 1-25, as indicated below.

Please cancel claims 26-28.

This listing of claims below will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended)   Computer software for ~~modelling~~ modeling the energy consumption of at least one process, said at least one process using a plurality of resource streams, with each resource stream having at least one operational attribute, said software being adapted to execute the steps of:

(i)   receiving at least one set of a range of attribute values for at least one attribute of at least one resource stream used by the process, wherein said received set of a range of attribute values is received from a user for said at least one operational attribute, and

(ii)   calculating at least one energy consumption value for the process using said received range or ranges of attribute values.

2. (Currently Amended)   Computer software as claimed in claim 1 wherein said software is adapted to execute the further preliminary step of identifying all resource streams used within the process to be ~~modelled~~ modeled.

3. (Currently Amended)   Computer software as claimed in ~~either~~ claim 1 ~~or claim 2~~ wherein said software is adapted to execute the additional preliminary step of identifying all operational attributes of resource streams used within the process which affect the energy consumption of the process.

4. (Currently Amended)   Computer software as claimed in ~~any previous claim~~ claim 1 wherein said software is adapted to execute the further additional subsequent step of indicating

the specific attribute value or values from the range or ranges supplied which result in the energy consumption value or values calculated.

5. (Currently Amended) Computer software as claimed in ~~any previous claim~~ <u>claim 1</u> wherein the energy consumed by the process ~~modelled~~ <u>modeled</u> is used to heat or cool at least one material.

6. (Currently Amended) Computer software as claimed in ~~any previous claim~~ <u>claim 1</u> wherein the software provided is adapted to calculate the total energy used to heat resource streams.

7. (Currently Amended) Computer software as claimed in ~~any previous claim~~ <u>claim 1</u> wherein the software provided is adapted to calculate the total energy used to cool resource streams.

8. (Currently Amended) Computer software as claimed in ~~any previous claim~~ <u>claim 1</u> wherein the software employed calculates the total global minimum energy consumed by a process

9. (Currently Amended) Computer software as claimed in ~~any previous claim~~ <u>claim 1</u> wherein the software employed calculates the total global maximum energy consumed by a process.

10. (Currently Amended) Computer software as claimed in ~~any previous claim~~ <u>claim 1</u> wherein the software provided is adapted to ~~optimise~~ <u>optimize</u> energy consumption characteristics of a process.

11. (Currently Amended) Computer software as claimed in claim 10 wherein the software provided indicates a specific ~~optimised~~ <u>optimized</u> set of operational attributes or operational attribute values.

12. (Currently Amended) Computer software as claimed in ~~any previous claim~~ <u>claim 1</u> wherein the software provided calculates an energy consumption value once it receives data associated with a new resource stream.

13. (Currently Amended) Computer software as claimed in ~~any previous claim~~ <u>claim 1</u> wherein a resource stream consists of a flow of material.

14. (Currently Amended) Computer software as claimed in ~~any previous claim~~ <u>claim 1</u> wherein an operational attribute is associated with a characteristic of a resource stream which has an affect of energy consumed by the process model.

15. (Currently Amended) Computer software as claimed in ~~any previous claim~~ <u>claim 1</u> wherein an operational attribute is the temperature of a flow of material.

16. (Currently Amended) Computer software as claimed in ~~any previous claim~~ <u>claim 1</u> wherein the software tracks all resource streams and all associated operational attributes of said resource streams which have an affect on the energy consumption of the process model.

17. (Currently Amended) Computer software as claimed in ~~any one of claims 1 to 15~~ <u>claim 1</u> wherein the software provided tracks selected resource streams and/or selected operational attributes of said resource streams to provide an approximate model of the process involved.

18. (Currently Amended) Computer software as claimed in ~~any previous claim~~ <u>claim 1</u> wherein a single set of a range of attribute values indicates an allowable range of values for an operational attribute.

19. (Currently Amended) Computer software as claimed in ~~any previous claim~~ <u>claim 1</u> wherein a single set of a range of attribute values ~~are~~ <u>is</u> received from a user for each operational attribute.

20. (Currently Amended) A method of ~~modelling~~ <u>modeling</u> the energy consumption of at least one process, said at least one process using a plurality of resource streams, with each

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resource stream having at least one operational attribute, said method being implemented through the steps of:

(i)   receiving at least one set of a range of attribute values for at least one attribute of at least one resource stream used by the process, and

(ii)   calculating at least one energy consumption value for the process using said received range or ranges of attribute values.

21. (Currently Amended)   Computer readable media storing computer software for ~~modelling~~ modeling the energy consumption of at least one process as claimed in ~~any one of claims 1 to 19~~ claim 1.

22. (Currently Amended)   An energy consumption ~~modelling~~ modeling system provided through a computer system programmed with computer software as claimed in ~~any one of claims 1 to 19~~ claim 1.

23. (Currently Amended)   A method of calculating global minimum heat energy utility and global minimum cooling energy utility for at least one process, said at least one process using a plurality of resource streams, with each resource stream having a temperature, said method executing the steps of;

i)   shifting resource stream temperature values up or down by half of the minimum temperature difference between hot and cold resource streams, ~~and~~

ii)   sorting the resource streams into a number of consecutively ordered temperature steps, ~~and~~

iii)   for each temperature step other than an external energy utility temperature step, calculating energy surplus values and energy output values for each step, and

iv)   using said calculated energy surplus values and energy output values for calculating global minimum heating energy utility and global minimum cooling energy utility.

24. (Currently Amended)   A method as claimed in ~~claims~~ claim 23 wherein two energy surplus values, Qs (low_surplus) and Qs (high_surplus), are calculated for each step.

25. (Currently Amended)   A method as claimed in ~~claims~~ <u>claim</u> 23 ~~or 24~~ wherein two energy output values, Qs (low_output) and Qs (high_output), are calculated for each step.

26-28. (Canceled)